

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please CANCEL claim 44 without prejudice or disclaimer and AMEND claims 1, 24, 40, 41, and 45, and ADD new claim 59 in accordance with the following:

1. (Currently Amended) A video/audio data recording/reproducing apparatus, comprising:

a camera unit;

~~a single chip controller controlling processing by at least two various function units as a digital camcorder, a digital still camera, a video recorder/reproducer, a data storage, an MP3 player and a voice recorder; and~~

~~a micro-compact hard disc drive as a main data recording medium storing data of the various function units,~~

~~wherein the single chip controller comprises:~~

~~a TV signal encoder to convert a data signal into a video signal according to either the NTSC (National television system committee) scheme or the PAL (Phase alternation line) scheme for an external device via an output terminal;~~

~~a MPEG decoder to decode MPEG video data,~~

~~an audio interface to produce MP3 audio data,~~

~~a Universal Serial Bus (USB) interface to transceive data, and~~

~~a storage medium to store data~~

wherein the apparatus further comprises:

a first housing;

a second housing in a parallel relation facing the receiving area of the first housing; and
a middle housing having one or more operational manipulators to control the single chip controller and supported in between the first and second housings, and

wherein the first and second housings each comprises an integral concave casing area covering the camera unit supported by the middle housing and positioned on a top portion of the first and second body housings.

2. (Original) The apparatus of claim 1, wherein the controller comprises:
 - a system bus;
 - a multiplexer/system resource controller in communication with the system bus and outputting image signals;
 - a motion picture experts group 4 compressor/decompressor in communication with the system bus and compressing/decompressing data of the function units;
 - a data recording medium interface in communication with the system bus and reading/writing data from/to a memory unit and the micro-compact hard disc drive;
 - a universal serial bus interface in communication with the system bus and receiving/transmitting the data of the function units;
 - a video processor in communication with the system bus and processing image signals input through the digital camcorder and still camera function units or input through an input terminal;
 - an audio encoder/decoder in communication with the system bus and processing input/output audio signals for the MP3 player and the voice recorder; and
 - a central processing unit controlling the controller via the system bus.
3. (Original) The apparatus of claim 1, further comprising a mode shifting switch selecting the function units.
4. (Original) The apparatus of claim 1, further comprising a transient integrated circuit interfacing the micro-compact hard-disk drive with the controller.
5. (Previously Presented) The apparatus of claim 1, further comprising:
 - a body including the single chip controller and the micro-compact hard disk drive; and
 - a station communicatively receiving the body and providing one or more transmission/reception terminals allowing data transmission/reception between the body and external computing devices.
6. (Original) The apparatus of claim 5, wherein the station and the body are communicatively connected via a connection terminal in the station and the body, respectively.
7. (Previously Presented) The apparatus of claim 5, wherein the station comprises one

or more manipulation buttons controlling the function units while the body is seated on the station.

8. (Original) The apparatus of claim 5, wherein the body further comprises a battery and the station recharges the battery power from an external power supply while the body is seated on the station.

9. (Previously Presented) The apparatus of claim 5, wherein the station comprises a Universal Serial Bus, an SVHS, an AV, or a video line input, or any combinations thereof, as the transmission/reception terminals.

10. (Original) The apparatus of claim 5, wherein the station comprises a signal reception unit receiving operations signals from a remote controller to control the function units while the body is seated on the station.

11. (Original) The apparatus of claim 5, further comprising a removable storage, wherein the body further comprises a window to check the removable storage connection.

12. (Original) The apparatus of claim 1, further comprising a video line input, wherein the controller receives image signals from the video line input, digitizes and compresses the image signals and stores the image signals in the micro-compact hard disc drive, thereby providing a video recorder as one of the various function units.

13. (Original) The apparatus of claim 12, further comprising a display unit displaying an image, wherein the controller reads the image signals from the micro-compact hard disc drive, decompresses the read image signals and outputs the decompressed image signals to the display unit for displaying, thereby providing a video reproducer as another function unit.

14. (Withdrawn) A video/audio data recording/reproducing apparatus, comprising:
a first housing having a receiving area facing inside of the apparatus and accommodating a hard disc drive and a circuit board;
a second housing in a parallel relation facing the receiving area of the first housing; and
a middle housing having a camera zoom button housing and supported in between the first and second housings to support a camera unit at a horizontal axial line of the camera zoom button housing in between the first and second housings.

15. (Withdrawn) The apparatus of claim 14, wherein the first and second housings each comprises an integral casing area covering the camera unit supported by the middle housing.

16. (Withdrawn) The apparatus of claim 15, wherein the integral casing areas are concave.

17. (Withdrawn) The apparatus of claim 16, wherein the camera zoom button housing is round and accommodated by the concave integral casing areas.

18. (Withdrawn) The apparatus of claim 14, wherein the second housing has a receiving area facing outside of the apparatus to receive a battery.

19. (Withdrawn) The apparatus of claim 14, wherein the middle housing has a through opening to receive therein the circuit board.

20. (Withdrawn) The apparatus of claim 18, further comprising a cover removably mounted on the second housing receiving area.

21. (Withdrawn) The apparatus of claim 14,
wherein the middle housing is rectangular having two vertical side surfaces and at least one bottom horizontal surface and a through opening, and
wherein increasing a width of the vertical and horizontal surfaces increases in the apparatus an interior receiving area comprising the first housing receiving area and the opening of the middle housing.

22. (Withdrawn) A video/audio data recording/reproducing apparatus, comprising:
a first housing having a receiving area facing inside of the apparatus and accommodating a hard disc drive;
a second housing in a parallel relation facing the receiving area of the first housing and having a receiving area facing outside of the apparatus and accommodating a removable battery; and
a middle housing having a camera zoom button housing and accommodating a circuit board, and supported in between the first and second housings to support a camera unit at a

horizontal axial line of the zoom button housing in between the first and second housings.

23. (Previously Presented) The apparatus of claim 5, wherein at least one of the transmission/reception terminals provided on the station is a Universal Serial Bus terminal.

24. (Currently Amended) An apparatus, comprising:

a video/audio data recorder/reproducer comprising:

a camera unit; and

a single chip controller to control processing by at least two various function units as a digital camcorder, a digital still camera, a video recorder/reproducer, a data storage, an MP3 player and a voice recorder,

~~wherein the single chip controller comprises:~~

~~a TV signal encoder to convert a data signal into a video signal according to either the NTSC (National television system committee) scheme or the PAL (Phase alternation line) scheme for an external device via an output terminal;~~

~~a MPEG decoder to decode MPEG video data;~~

~~an audio interface to produce MP3 audio data;~~

~~a Universal Serial Bus (USB) interface to transceive data, and~~

~~a storage medium comprising a flash memory, or a micro-compact hard disk drive, or any combinations thereof, to store data.~~

wherein the apparatus further comprises:

a first housing;

a second housing in a parallel relation facing the receiving area of the first housing; and

a middle housing having one or more operational manipulators to control the single chip controller and supported in between the first and second housings, and

wherein the first and second housings each comprises an integral concave casing area covering the camera unit supported by the middle housing and positioned on a top portion of the first and second body housings.

25. (Previously Presented) The apparatus of claim 24, wherein the video/audio data recorder/reproducer further comprises a micro-compact hard disc drive as a main data recording medium to store data of the various function units.

26. (Previously Presented) The apparatus according to claim 24, further comprising:

a station to communicatively support the video/audio data recorder/reproducer and to provide one or more transmission/reception terminals allowing data transmission/reception between the video/audio data recorder/reproducer and an external device via the station.

27. (Previously Presented) The apparatus of claim 26, wherein the station and the video/audio data recorder/reproducer communicatively connect via a connection terminal in the station and the video/audio data recorder/reproducer, respectively.

28. (Previously Presented) The apparatus of claim 26, wherein the station comprises one or more function manipulators controlling the function units while the video/audio data recorder/reproducer sits on the station.

29. (Previously Presented) The apparatus of claim 26, wherein the video/audio data recorder/reproducer further comprises a battery, and the station further comprises a charger to charge the battery from an external power supply while the video/audio data recorder/reproducer sits on the station.

30. (Previously Presented) The apparatus of claim 26, wherein the station further comprises:

a battery receiving area to receive a battery; and
a charger to charge the battery from an external power supply while the battery is in the receiving area of the station.

31. (Previously Presented) The apparatus of claim 26, wherein the station comprises a Universal Serial Bus, an SVHS, an AV, or a video line input, or any combinations thereof, as the one or more transmission/reception terminals.

32. (Previously Presented) The apparatus of claim 26, wherein the video/audio data recorder/reproducer further comprises:
a camera unit; and
a battery compartment positioned perpendicularly to the camera unit.

33. (Previously Presented) The apparatus of claim 32, wherein the video/audio data recorder/reproducer further comprises: a camera zoom controller manipulated by sliding along a circular-arc.

34. (Previously Presented) The apparatus of claim 33, wherein the camera zoom button is positioned on a perpendicular plane or a parallel plane to the camera unit.

35. (Previously Presented) The apparatus of claim 26, wherein the video/audio data recorder/reproducer further comprises:

a display unit; and
one or more transceiver terminals to communicably connect with an external device, wherein the station communicatively supports the video/audio data recorder/reproducer to expose the display unit and the one or more transceiver terminals.

36. (Previously Presented) The apparatus of claim 26, wherein the video/audio data recorder/reproducer further comprises one or more function manipulators, and

wherein the station comprises one or more function manipulators corresponding to the recorder/reproducer function manipulators while the video/audio data recorder/reproducer sits on the station.

37. (Previously Presented) The apparatus of claim 35, wherein the display unit comprises one or more function manipulators and the display unit is rotatable to be exposed, including the function manipulators, while the video/audio data recorder/reproducer sits on the station.

38. (Previously Presented) The apparatus according to any one of claims 36 or 37, wherein the station further comprises a sloped receiving area to angle the supported video/audio data recorder/reproducer to enable easy viewing and manipulation of the display unit of the video/audio data recorder/reproducer.

39. (Previously Presented) The apparatus according to claim 25, wherein the video/audio data recorder/reproducer further comprising a display and a battery, wherein the display, the micro-compact hard disc drive and the battery are all in a parallel relation to each

other.

40. (Currently Amended) An apparatus, comprising:

a camera unit;

a programmable single chip controller to control processing by various function units as a digital camcorder, a digital still camera, a video recorder/reproducer, a data storage, an MP3 player, or voice recorder, or any combinations thereof; and

a station to communicatively support the programmable controller and comprising:

one or more transmission/reception terminals to enable data transmission/reception between the programmable controller and an external device through the station,

wherein at least one of the transmission/reception terminals is a Universal Serial Bus (USB) terminal, and

~~wherein the programmable single chip controller comprises:~~

~~a TV signal encoder to convert a data signal into a video signal according to either the NTSC (National television system committee) scheme or the PAL (Phase alternation line) scheme for an external device via an output terminal;~~

~~a MPEG decoder to decode MPEG video data;~~

~~an audio interface to produce MP3 audio data;~~

~~a Universal Serial Bus (USB) interface to transceive data, and~~

~~a storage medium comprising a flash memory, or a micro compact hard disk drive, or any combinations thereof, to store data.~~

wherein the apparatus further comprises:

a first housing;

a second housing in a parallel relation facing the receiving area of the first housing; and

a middle housing having one or more operational manipulators to control the single chip controller and supported in between the first and second housings, and

wherein the first and second housings each comprises an integral concave casing area covering the camera unit supported by the middle housing and positioned on a top portion of the first and second body housings.

41. (Currently Amended) An apparatus, comprising:

a camera unit; and

a single chip controller to control processing of function units as an audio, video, or still

image, or any combinations thereof, reproducer, and a data storage,
~~wherein the single chip controller comprises:~~
~~a TV signal encoder to convert a data signal into a video signal according to either the NTSC (National television system committee) scheme or the PAL (Phase alternation line) scheme for an external device via an output terminal;~~
~~a MPEG decoder to decode MPEG video data;~~
~~an audio interface to produce MP3 audio data;~~
~~a Universal Serial Bus (USB) interface to transceive data, and~~
~~a storage medium to store data.~~
wherein the apparatus further comprises:
a first housing;
a second housing in a parallel relation facing the receiving area of the first housing; and
a middle housing having one or more operational manipulators to control the single chip controller and supported in between the first and second housings, and
wherein the first and second housings each comprises an integral concave casing area covering the camera unit supported by the middle housing and positioned on a top portion of the first and second body housings.

42. (Previously Presented) The apparatus according to claim 41, wherein the audio reproducer reproduces MP3 audio data, the video reproducer reproduces MPEG video data and the still image reproducer reproduces JPEG image data.

43. (Cancelled)

44. (Cancelled)

45. (Currently Amended) The apparatus according to claim-44~~41~~,
wherein the controller is implemented in a circuit board,
wherein the storage medium is a micro-compact hard disk drive, and
wherein the first housing comprises a receiving area to face inside the apparatus and to accommodate the micro-compact hard disk drive and the circuit board that implements the controller.

46. (Previously Presented) The apparatus according to claim 45, further comprising a

display, wherein the display is a liquid crystal display (LCD) monitor provided on the first housing and facing away from the receiving area and positioned in a parallel plane to the micro-compact hard disk drive.

47. (Previously Presented) The apparatus according to claim 41, further comprising:
a station to communicatively support the controller to provide one or more transmission/reception terminals allowing data transmission/reception between the controller and an external device via the station.

48. (Previously Presented) The apparatus of claim 41,
wherein the controller further comprises one or more function manipulators, and
wherein the station comprises one or more function manipulators corresponding to the controller function manipulators while the controller sits on the station.

49. (Previously Presented) The apparatus of claim 47, wherein the station comprises one or more function manipulators controlling the function units while the controller sits on the station.

50. (Previously Presented) The apparatus of claim 47, further comprising a battery,
wherein the station further comprises a charger to charge the battery from an external power supply while the controller sits on the station.

51. (Previously Presented) The apparatus of claim 47, further comprising a battery,
wherein the station further comprises:
a battery receiving area to receive the battery; and
a charger to charge the battery from an external power supply while the battery is in the receiving area of the station.

52. (Previously Presented) The apparatus of claim 47, wherein the station further comprises a Universal Serial Bus, an SVHS, an AV, or a video line input, or any combinations thereof, as the one or more transmission/reception terminals.

53. (Previously Presented) The apparatus of claim 47, further comprising a display,
wherein the controller comprises one or more transceiver terminals, and

wherein the station communicatively supports the controller to expose the display, including the one or more transceiver terminals.

54. (Previously Presented) The apparatus according to claim 53, wherein the display comprises one or more function manipulators and the display is rotatable to be exposed, including the function manipulators, while the controller sits on the station.

55. (Previously Presented) The apparatus according any one of claims 47 or 54, wherein the station further comprises a sloped receiving area to angle the supported controller to enable easy viewing and manipulation of the display of the controller.

56. (Previously Presented) The apparatus according to claim 41, further comprising a display and a battery, wherein the display, the storage medium and the battery are all in a parallel relation to each other.

57. (Previously Presented) The apparatus according to claim 41, wherein the storage medium is flash memory.

58. (Cancelled)

59. (NEW) The apparatus according to claim 1, wherein the single chip controller comprises:

an encoder to convert a data signal into a video signal according to either the NTSC (National television system committee) scheme or the PAL (Phase alternation line) scheme for an external device via an output terminal,

a MPEG decoder to decode MPEG video data,

an audio interface to produce MP3 audio data,

a Universal Serial Bus (USB) interface to transceive data, and

a storage medium to store data